

REMARKS

The Office Action dated June 16, 2005 has been received and reviewed by the applicant. Claims 1-18 are in the application. Claims 1-18 stand rejected. Claims 1 and 10 are amended. Reconsideration is respectfully requested.

Claims 1-2, 8-11 and 17-18 stand rejected under 35 U.S.C. 102(e) as being anticipated by Maes et al. (hereinafter, "Maes") (US 6,625,298). The rejection cites Maes et al. (US 6,625,298) as anticipating the independent claims 1 and 10. The rejection states that "Maes discloses a method for extracting a watermark in a watermarked digital image sequence, having two or more frames (Figure 2, col. 4 lines 36-41), comprising the steps of: a) estimating correspondences (i.e., comparison) between one or more pairs of frames in the watermarked digital image sequence (comparing means 202 estimating correspondence between the *input signal* 201 and an *original input signal* 204, col. 4, lines 42-43)." This language clearly indicates that Maes requires an original input signal to carry out his invention, and this limitation is further supported by Fig. 2 of Maes, where an extraction process is shown that requires two image sequences (201 and 204) as inputs to the comparing means 202. In contrast, the claimed invention has the distinct advantage of ***not requiring an original input signal*** (support is found on p. 5, lines 29-31, and in Fig. 3 and its corresponding text on p. 9, line 26 to p. 12, line 8). Claims 1 and 10 as amended require **only** the watermarked image sequence.

Furthermore, the rejection has equated the step of estimating correspondences in our invention with the step of comparison as disclosed by Maes. As noted above, Maes compares the input signal 201 with the original input signal 204 using a comparing means 202 to determine if some frames are missing or duplicated in the input signal (col. 4, lines 42-53). In contrast, the step of estimating correspondences in claims 1 and 10 lead to correspondences between "pixels" in one frame and "pixels" in another frame (p. 10, lines 10-12), where the frames are taken from the same watermarked sequence. Maes does not disclose or suggest that the computation or use of such pixels correspondences would be of value, and indeed states that the differences from the computing means 202 are "frames that are missing in the input signal 201 but present in the original input

signal 204, frames that occur twice in the input signal 201 and once in the original input signal 204, frames that are present in the input signal 201 but missing in the original input signal 204, and so on.” As such, Maes only provides correspondences at a frame level, and not at a pixel level as is required in claims 1 and 10. For clarification, claims 1 and 10 are modified to state that the correspondences are between the pixels of the watermarked frames and not simply correspondences that indicate missing or duplicated frames as disclosed in Maes.

In rejecting claim 1, the rejection also cites Maes as disclosing the step: “b) computing the displaced frame difference for one or more frames in the watermarked digital image sequence using the correspondences computed in step a).” It is noted that Maes only compares the input signal with the original input signal to determine if some frames are missing or duplicated in the input signal, consequently, there is no means for computing *displaced* frame differences as practiced in our invention.


With regards to claim 2, the rejection cites Maes as disclosing “the displaced frame difference is computed by forming an estimated frame (estimated frame are represented as “missing” frames or frames that occurs twice at col. 4 lines 46-51) and subtracting the estimated frame from the corresponding frame in the watermarked digital image sequence as discloses at col. 4 lines 42-67.” As argued hereinabove for claim 1, Maes does not disclose or suggest the computation of displaced frame differences. Moreover, the claimed invention displaced framed differences are computed using only frames *within the same image sequence*, whereas any differences that are taught by Maes always involves comparing frames from an original input signal with frames from a watermarked input signal.

With regards to claims 8-9, the examiner rejects these claims by pointing to the use of the word “frames” in Maes (col. 4 lines 45-53). Again, the “frame” or “frames” referred to in Maes are frames in the original input image sequence, whereas the claimed invention is with respect only to frames in the watermarked sequence, and does not require original frames. Moreover, Maes does not disclose or suggest the use of displaced frame differences as stated previously.

Should the Examiner consider that additional amendments are necessary to place the application in condition for allowance, the favor is requested of a telephone call to the undersigned counsel for the purpose of discussing such amendments.

For the reasons set forth above, it is believed that the application is in condition for allowance. Accordingly, reconsideration and favorable action are respectfully solicited.

Respectfully submitted,


Attorney for Applicant(s)
Registration No. 36,390

Peyton C. Watkins/lam
Rochester, NY 14650
Telephone: 585-477-8282
Facsimile: 585-477-4646

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.